



PTO/SB/08a (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		08978634
	Filing Date		1997-11-25
	First Named Inventor	Rabbani	
	Art Unit	1635	
	Examiner Name	D. Shin	
	Attorney Docket Number	Enz-53-D2	

U.S.PATENTS						
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	6538107		2003-03-25	Hinuma	
	2	5827935		1998-10-27	Rossi	
	3	5821046		1998-10-13	Karn	
	4	5854038		1998-12-29	Sullenger	
	5	5734039		1998-03-31	Calabretta	
	6	5712384		1998-01-27	Symonds	
	7	5648243		1997-07-15	Hurwitz	
	8	5646032		1997-07-08	ter Meulen	



**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	08978634
Filing Date	1997-11-25
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	D. Shin
Attorney Docket Number	Enz-53-D2

9	5633152	1997-05-27	McKnight	
10	5610067	1997-03-11	Saito	
11	5604118	1997-02-18	Giri	
12	5591601	1997-01-07	Wagner	
13	5587308	1996-12-24	Carter	
14	5574142	1996-11-12	Meyer	
15	5547932	1996-08-20	Curiel	
16	5413999	1995-05-09	Vacca	
17	5128256	1992-07-07	Huse	
18	4716112	1987-12-29	Panayotatos	
19	4795706	1989-01-03	Hsiung	



**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number		08978634
Filing Date		1997-11-25
First Named Inventor	Rabbani	
Art Unit	1635	
Examiner Name	D. Shin	
Attorney Docket Number	Enz-53-D2	

If you wish to add additional U.S. Patent citation information please click the Add button.

U.S. PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1					

If you wish to add additional U.S. Published Application citation information please click the Add button.

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ²	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1	WO9508635			1995-03-30	Craig		<input type="checkbox"/>
	2	WO9506129			1995-03-02	Craig		<input type="checkbox"/>

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	1	VERMA et al. "Gene therapy -- promises, problems and prospects" Nature 389: 239-242. 1997	<input type="checkbox"/>
	2	FISHER "Neural precursor cells: applications for the study and repair of the central nervous system" Neurobiology of Disease 4: 1-22. 1997	<input type="checkbox"/>
	3	DATTA et al. "Mitotic crossovers between diverged sequences are regulated by mismatch repair proteins in Saccaromyces cerevisiae" Mol. Cell Biol. 16: 1085-1093. 1996	<input type="checkbox"/>



**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	08978634
Filing Date	1997-11-25
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	D. Shin
Attorney Docket Number	Enz-53-D2

4	BENNET et al. "Pharmacology of antisense therapeutic agents" ch 2 in Methods in Molecular Medicine: Antisense Therapeutics Ed. S. Agrawal, Humana Press, Inc. Totowa, NJ 1996	<input type="checkbox"/>
5	WANG et al., "Delivery of antisense oligodeoxyribonucleotides against the human epidermal growth factor receptor into cultured KB cells with liposomes conjugated to folate via polyethylene glycol" Proc. Natl. Acad. Sci. USA 92: 3318-3322. 1995	<input type="checkbox"/>
6	THIMME et al., "Mx1 but not MxA confers resistance against tick-borne Dhori virus in mice" Virology 211: 296-301. 1995	<input type="checkbox"/>
7	SUN et al. "Resistance to human immunodeficiency virus type 1 infection conferred by transduction of human peripheral blood lymphocytes with ribozyme, antisense, or polymeric trans-activation response element constructs" Proc. Natl. Acad. Sci. USA 92: 7272-7276. 1995	<input type="checkbox"/>
8	ROSSI, "Controlled, targeted, intracellular expression of ribozymes: progress and problems" Trends Biotechnol. 13: 301-306. 1995	<input type="checkbox"/>
9	RAMIREZ et al., "Transcriptional inhibition of the Parvovirus Minute virus of mice by constitutive expression of an antisense RNA targeted against the NS-1 transactivator protein" Virology 206: 57-68. 1995	<input type="checkbox"/>
10	PARDRIDGE et al., "Vector-Mediated delivery of a polyamide ("peptide") nucleic acid analogue through the blood-brain barrier in vivo" Proc. Natl. Acad. Sci. USA 92: 5592-5596. 1995	<input type="checkbox"/>
11	MILLER et al. "Targeted vectors for gene therapy" FASEB J. 9: 190-199. 1995	<input type="checkbox"/>
12	LIMJOCO et al. " Resistance to retroviral infection in transgenic and bone marrow chimeric mice containiing Fv4-env-expression hematopoietic cells" Virology 208: 75-83. 1995	<input type="checkbox"/>
13	LAU et al. "Retroviral gene transfer into the intestinal epitheLAU et al. "Retroviral gene transfer into the intestinal epithelium" Hum Gene Ther. 6: 1145-1151. 1995	<input type="checkbox"/>
14	BINKLEY et al. "RNA ligands to human nerve growth factor" Nucleic Acids Res. 23: 3198-3205. 1995	<input type="checkbox"/>



**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	08978634
Filing Date	1997-11-25
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	D. Shin
Attorney Docket Number	Enz-53-D2

15	ALLY et al. "Prevention of autoimmune disease by retroviral-mediated gene therapy" J. Immunol. 155: 5404-5408. 1995	<input type="checkbox"/>
16	AGRAWAL et al. "Absorption, tissue distribution and in vivo stability in rates of a hybrid antisense oligonucleotide following oral administration" Biochem. Pharmacol. 50: 571-576. 1995	<input type="checkbox"/>
17	VIEILLARD et al. "Blocking of retroviral infection at a step prior to reverse transcription in cells transformed to constitutively express interferon beta" Proc. Natl. Acad. Sci. USA 91: 2689-2693 1994	<input type="checkbox"/>
18	LEWIN, in Genes V, pp 914-915. 1994	<input type="checkbox"/>
19	JUNKER et al. "Reduction in replication of the human immunodeficiency virus type 1 in human T cell lines by polymerase III-drive transcription of chimeric tRNA-antisense RNA genes" Antisense Res. Dev. 4: 165-172. 1994	<input type="checkbox"/>
20	DE YOUNG et al. "Functional characterization of ribozymes expressed using U1 and T7 vectors for the intracellular cleavage of ANF mRNA" Biochemistry 33: 12127-12138. 1994	<input type="checkbox"/>
21	CROOKE "Progress in evaluation of the potential of antisense therapy" Antisense Res. and Development 4: 145-146. 1994	<input type="checkbox"/>
22	VLASSOV et al., "Penetration of oligonucleotides into mouse organism through mucosa and skin" FEBS Lett. 327: 271-274. 1993	<input type="checkbox"/>
23	COX et al. "Effect of resistance on combination chemotherapy for human immunodeficiency virus infection" Adv. Enzyme Regul. 33: 27-36. 1993	<input type="checkbox"/>
24	BALVAY et al. "Pre-mRNA secondary structure and the regulation of splicing" BioEssays 15: 165-169. 1993	<input type="checkbox"/>
25	ALLAWAY et al. "Synergistic inhibition of HIV-1 envelope-mediated cell fusion by CD4-based molecules in combination with antibodies to gp120 or gp41" AIDS Res. Human Retroviruses 9: 581-587. 1993	<input type="checkbox"/>



**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	08978634
Filing Date	1997-11-25
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	D. Shin
Attorney Docket Number	Enz-53-D2

26	ZAIA et al., "Status of ribozyme and antisense-based developmental approaches for anti-HIV-1 therapy" Annals of the NY Acad Sci 660: 95-106. 1992	<input type="checkbox"/>
27	IZANT "Chimeric Antisense RNAs" in Gene Regulation: Biology of Antisense RNA and DNA pp 183-195. Raven Press, Ltd. New York 1992	<input type="checkbox"/>
28	DUMONTET et al. "[Chemotherapy for human immunodeficiency virus infection. Current status and perspectives]" La Revue de Medecine Intern. 13: 460-464. 1992.	<input type="checkbox"/>
29	BURKLY et al., "Inhibition of HIV infection by a novel CD4 domain 2-specific monoclonal antibody. Dissecting the basis for its inhibitory effect on HIV-induced cell fusion" J. Immunol. 149: 1779-1787. 1992	<input type="checkbox"/>
30	PILCH et al. "Expression of histone-U1 snRNA chimeric genes: U1 promoters are compatible with histone 3' end formation" Gene Expression 1: 41-53. 1991	<input type="checkbox"/>
31	JOSHI et al., "Inhibition of human immunodeficiency virus type 1 multiplication by antisense and sense RNA expression" J. Virol. 65: 5524-5530. 1991	<input type="checkbox"/>
32	FARUQI et al., "Replication-defective missense mutations within the terminal protein and spacer/intron regions of the polymerase gene of human hepatitis B virus" Virology 183: 764-768. 1991	<input type="checkbox"/>
33	YAMASHITA et al. "Comparison of human lymphotoxin gene expression in CHO cells directed by genomic DNA or cDNA sequences" Agric. Biol. Chem. 54: 2801-2809. 1990	<input type="checkbox"/>
34	FISCHER et al. "An essential signaling role for the m3G cap in the transport of U1 snRNP to the nucleus" Science 249: 786-790. 1990.	<input type="checkbox"/>
35	YOSHIMATSU et al. "Control of gene expression by artificial introns in Saccharomyces cerevisiae" Science 244: 1346-1348. 1989	<input type="checkbox"/>
36	VOS et al. "DNA interstrand cross-links promote chromosomal integration of a selected gene in human cells" Mol. Cell. Biol. 9: 2897-2905. 1989	<input type="checkbox"/>

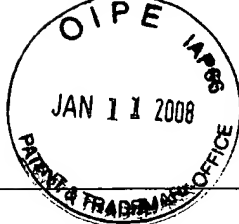


**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	08978634
Filing Date	1997-11-25
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	D. Shin
Attorney Docket Number	Enz-53-D2

37	GATERMANN et al. "Introduction of functional artificial introns into the naturally intronless ura4 gene of Schizosaccharomyces pombe" Mol. Cell Biol. 9: 1526-1535. 1989	<input type="checkbox"/>
38	NEUMAN DE VEGVAR "Initiation and termination of human U1 RNA transcription requires the concerted action of multiple flanking elements" Nucleic Acids Res. 17: 9305-9318. 1989	<input type="checkbox"/>
39	BEBENEK et al. "Specificity and mechanism of error-prone replication by human immunodeficiency virus-1 reverse transcriptase" J. Biol. Chem. 264: 16948-16956. 1989	<input type="checkbox"/>
40	REFERENCE INTENTIONALLY OMITTED FROM THIS SPACE	<input type="checkbox"/>
41	DAHLBERG et al. "The Genes and Transcription of the Major Small Nuclear RNAs" in Structure and Function of Major and Minor Small Nuclear Ribonucleoprotein Particles Birnstiel, ed. Springer Verlag, Heidelberg, pp 38-70. 1988	<input type="checkbox"/>
42	OLD et al. "Principles of Gene Manipulation" Blackwell Scientific Publications, London, 1986	<input type="checkbox"/>
43	DAVIS et al., "Basic Methods in Molecular Biology" Elsevier, NY 1986	<input type="checkbox"/>
44	PERBAL, "A Practical Guide to Molecular Cloning" John Wiley & Sons, New York, 1984	<input type="checkbox"/>
45	MANIATIS et al. Molecular Cloning, A Laboratory Manual, Cold Spring Harbor Laboratory Press, 1982	<input type="checkbox"/>
46	Definitions for "compound", "polymer", "monomer" on 2005-10-19 from www.cancerweb.ncl.ac.uk	<input type="checkbox"/>

If you wish to add additional non-patent literature document citation information please click the Add button



**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Not for submission under 37 CFR 1.99)

Application Number	08978634
Filing Date	1997-11-25
First Named Inventor	Rabbani
Art Unit	1635
Examiner Name	D. Shin
Attorney Docket Number	Enz-53-D2

EXAMINER SIGNATURE

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.